

CLAIMS

1. (Currently Amended) A composite reverse osmosis membrane comprising:

a porous support; and

a polyamide skin layer formed on the porous support,

wherein the composite reverse osmosis membrane is produced by a method comprising

the steps of:

forming a layer on the porous support by coating a solution A comprising an amino

compound having at least two reactive amino groups;

contacting the layer with a solution B comprising a polyfunctional acid halide

compound; and

subsequently contacting the layer with a solution C comprising the polyfunctional

acid halide compound at a concentration higher than a concentration of the

polyfunctional acid halide compound in the solution B to form the polyamide

skin layer;

and wherein a contact angle between a surface of the polyamide skin layer and water is

no more than 45°, sodium chloride rejection is at least 98%, and a permeate flow

rate is at least 0.7 m³/m²·day when evaluated by using feed water which has pH

6.5, 0.05 weight % of salt, an operation pressure of 5 kgf/cm² and a temperature

of 25°C.

2. (Original) The composite reverse osmosis membrane according to claim 1, wherein the contact

angle is no more than 40°.

3-4. (Cancelled) ✓

5. (Previously amended) The composite reverse osmosis membrane according to claim 1,

wherein the salt rejection is at least 98% and the permeate flow rate is at least 0.8

m³/m²·day.

6-17. (Cancelled). ✓

18. (New) The composite reverse osmosis membrane according to claim 1, wherein the concentration of the polyfunctional acid halide compound in the solution C is at least 1.2 times the concentration of the polyfunctional acid halide compound in the solution B.

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19. (New) The composite reverse osmosis membrane according to claim 1, wherein the solution C is applied to the layer before the solution B is completely dried on the layer.
